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The role of group activity participation in depression among institutionalized elderly

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The Role of Group Activity Participation in Depression Among Institutionalized Elderly

A thesis submitted in partial satisfaction of the requirements for the degree of
MASTER OF SCIENCE IN
NURSING EDUCATION

by

Amparita L. Cabrera

1996
To: Linda Simunek  
School of Nursing  

This thesis, written by Amparita L. Cabrera, and entitled "The Role of Group Activity Participation in Depression Among Institutionalized Elderly," having been approved in respect to style and intellectual content, is referred to you for judgement.

We have read this thesis and recommend that it be approved.

Dr. Luz Portet, Major Professor

Dr. Donna Rush, Committee Member

Dr. Gonzalo C. de Guzman, Committee Member

Date of Defense: March 28, 1996

The thesis of Amparita L. Cabrera is approved.

Dr. Linda Simunek  
School of Nursing

Dr. Richard Campbell  
Dean of Graduate Studies

Florida International University, 1996
Dedication

In loving memory of my father Santos C. Lorenzo who valued education and once said that education is the only real wealth he could give us.

To my daughter Kimberly. And to Speckles.
Acknowledgment

A special thanks goes to Dr. Luz Porter, my major professor, for “walking me” through this research process, your encouraging comments kept my spirits up. You’re usually there when I needed you. To Dr. Donna Rush for being a member of my thesis committee and for having the confidence in me. To Dr. Gonzalo de Guzman for critiquing my text and your untiring explanations and patience in the many trying moments when I almost gave up. Thanks for your insistence, persistence and most of all for your support.

I am grateful to my family, Rudy my husband for bearing with me during all these times, for “picking up” what I have failed to do. I know I owe you. Thanks for typing and formatting the entire text of the thesis. I would have not done it without you. Thank you Kimberly for giving me the chance to “continue school” when it is you who needed Mommy for school guidance, for the times I was not there with you and Daddy. I am proud of you and your achievements.

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Again, thanks and I love you all.
Abstract

The role of group activity participation in depression among a group of residents (N=65), age 80 and older, in a nursing home was examined using the framework of Roy's Adaptation Theory and Nolen-Hoeckema's Response Style Theory of Depression. Roy views depression as a maladaptation. Nolen-Hoeckema views group activity participation as a therapeutic distraction to break depressed moods and thus allow for positive adaptation.

This study utilized data from medical records, group activity attendance, and self-report questionnaires. Demographic distributions were computed and correlational statistics were performed between subjects' participation and their degree of depression, pain experience, functional status, presence of social support, and perception of benefits. Results show a negative correlation between frequency of participation and Geriatric Depression Scale score (GDS). The wide range of measured frequencies among low GDS-scored subjects suggests that less depressed individuals exercise more freedom of choice to participate than those who are more depressed. Significant finding show a positive correlation of group activity participation with functional status in terms of ambulation. Data shows that the experience of pain was not a significant deterrent to participation. The presence of social support from the staff and family did not increase participation. However there is a lesser GDS score among subjects who had recent family/friends visit suggesting a positive role of family in decreasing depression.

These results are significant not only for optimizing group therapeutic effects but also for understanding basic human and environmental correlates of depression. Study limitations are pointed out and recommendations are presented.
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Chapter 1

Introduction

As the population of the elderly increases health care practitioners will encounter depression, a common yet unrecognized severe mental health concern among the elderly (Buckwalter & Babich, 1990; Calarco & Krone, 1991; Steiner & Marcopulos, 1991).

Depression is readily associated with old age. It is viewed as a normal, natural part of aging (American Psychiatric Association, 1987; Campbell, 1992; Kurlowicz, 1993) often taken for granted, misdiagnosed, and subsequently untreated (Abraham et al., 1991; Kurlowicz, 1993; Steiner & Marcopulos, 1991). Among the elderly, depression leads to social isolation when the relationships are already fewer in number and are affected by the physical and mental process of aging. Depression in the elderly is potentially a chronic and relapsing illness with significant associated medical and social morbidity (Steiner & Marcopulos, 1991). It involves immense personal and family suffering and high social and economic costs (Ansseau et al., 1991; Steiner & Marcopulos, 1991).

Depressive disorders remain a serious mental health problem despite significant advances in our understanding of their etiology and the advent of many effective psychological and pharmacologic treatments (Buckwalter & Babich, 1990). Data from the National Institute of Mental Health (NIMH) Epidemiologic Catchment Area Program indicated a 7.1% lifetime prevalence rate for major depression for women, a considerably lower rate of 3.5% for men, and a 5.8% prevalence rate when data from both sexes are combined. In the hospital setting, 10% to 15% of adults will suffer from symptoms of a major depressive episode, and another 20 to 30% will experience significant depressive symptoms. Among the medically ill and the elderly in long term care facilities, prevalence rate of major depression and appreciable depressive symptoms are much greater, 12-16%
and 20-30%, respectively (Kurlowicz, 1993). Although devastating, depression, fortunately, is a treatable disease (Ansseau et al., 1991; Campbell, 1992; Gomez & Gomez, 1993). Accurate and early diagnosis favors a good prognosis.

The concept of depression has been discussed and reviewed mostly in the fields of Psychology and Medicine within which there has been offerings of causative factors and various treatments. Literature data support the efficacy and advantages of either pharmacologic or group psychotherapeutic interventions for treating depression in the elderly. There is even a faster growing popularity of combining these two modalities as a form of treatment, and many clinicians believe this to be the best strategy (see e.g. Abraham et al., 1991; Steiner & Marcopulos, 1991). Macaskill (1982) identified aspects of group therapy suitable for borderline patients and underscored the need to study further the selective efficacy of group therapies. Marcovitz and Smith (1983) dealt with patients' perceptions of the curative factors of group therapy and the actual benefits they derived from their group experiences. The result of their study showed that 86% of the participants found the group therapy helpful; 4% felt it was not helpful; and 10% remained undecided. It suggested the need to encourage group participation among the patients.

Inspite of the abundance of literature on group psychotherapy, to date, the literature on group therapy dealing specifically with group activities such as those presented above (e.g. wellness and exercise programs, arts and crafts) has been sparse. No studies comparable to Macaskill's (1982) exist that address the key issues and motivational features of the above mentioned activities. In particular, quantitative and qualitative data regarding the effects of specific group activities on depressed patients are comparatively rare.

**Purpose of the Study**

Knowledge of the key attributes of depression is important in caring for the elderly;
providing them with the best possible treatment with the least complications like group therapy is a challenge to health care workers. It is, therefore, the purpose of this study to examine the role of group activity participation in the degree of depression in institutionalized depressed elderly.

Problem Statement

*General Problem:* To what extent does participation in group activity (PGA) alter the degree of depression (DD) in institutionalized depressed elderly (IDE)?

*Specific Problems:*

1. What is the correlation between the GDS score and the frequency of PGA?

2. What are the human correlates of depression in IDE?
   2.1. Gender
   2.2. Educational background
   2.3. Functional status in terms of mobility
   2.4. Pain experience

3. What are the environmental correlates of depression in IDE?
   3.1. Availability of social support
      a) family
      b) significant others
      c) health care workers
   3.2. Planned program activities
a) reminders
b) calendar of events

4. What is the relationship between PGA and IDE's

4.1. pain experience
4.2. functional status
4.3. availability of social support
4.4. perception of benefits?

Variables

The main variables under study are "participation in group activity," "degree of depression," in IDE, as well as specific human and environmental factors. These variables are not controlled nor manipulated.

Definitions of Terms

(a) Institutionalized depressed elderly (IDE) = a male or female, age 65 or older, residing in a long-term care facility, and who has a clinical diagnosis of depression recorded in the medical chart.

(b) Depression = a primary mood disorder with themes of negative thought patterns reflected as hopelessness, helplessness, deprecation, loss of interest and pleasure resulting in withdrawal from all activities, including personal hobbies and activities of daily living (Ronsman, K., 1987). It is often times manifested through somatic complaints, as one experiences loss and incapacitation (Gomez & Gomez, 1993; Steiner & Marcopulos, 1991).
(c) Group activity = a form of intervention comprising 2 or more interacting people designed to alleviate depressive symptomatology through social activities, e.g., arts and crafts, painting, current events/timely topics, music and coffee hour, wellness/exercise program, cocktail parties, video/movie watching, pet therapy, bingo, and elder trivia.

(d) Participation in Group Activity (PGA) = the act of taking part, being present and/or sharing in a group activity.

(e) Human factors = characteristics or attributes that relate to a living person such as age, gender, social status and educational background.

(f) Environmental factors = the things and conditions that are liable to affect a person or place.

Significance of the Study

It is hoped that this paper will provide an overview of the issues involved in understanding the concept of depression and its treatment. Equally important are the possible benefits that might come out of this study. These are:

1) Lend support to the holistic approach to nursing.

Nursing has placed emphasis in viewing man as a biopsychosocial human being, in constant interaction with his environment. Depression is a biological, psychological, and social event and the understanding of the human response to the depressive experience is basic to viewing man holis-
tically. This nursing approach of caring for the patient as an integrated whole person, considering physical, psychosocial, and situational/environmental interactions, is what holistic nursing aims to achieve (Dossey, Keegan, Guzzetta & Kolkmeier, 1988). The value of holistic approaches is increasingly recognized and accepted by the academic community and the general public. The challenge is to acknowledge this development and consider it wisely, given that holistic interventions have potential to change the face of nursing.

2) Add to the knowledge base on depression among the elderly.

This study will enhance awareness and understanding of the key attributes and extent of depression among the elderly. Increased knowledge and sensitivity to these factors is crucial to nursing, as nursing is committed to protecting and improving the health of disadvantaged populations. It will help in planning of activities that are more conducive to IDE's PGA. It will pave the way for specific activity programs geared toward life-enhancement for older people to enjoy good health throughout the remaining years of their lives.

3) Justify the integration of alternative approaches to nursing care and demonstrate its effectiveness in the management of clients in advanced nursing practice.

The potential benefit to subjects will be effective non-pharmacologic interventions without the complications related to traditional pharmacologic approach in the treatment of depressions. Increased pleasant activities and
increased activity level correlate well with remediation of the affective symptoms of depression (Batson et al., 1979; Rehm, 1982).

4) *Serve as a guide to create an evaluation tool for existing activity programs.*

The knowledge of subjects' key attitudes *vis-a-vis* the optimal combination of group activity will provide a more accurate context for evaluating effectiveness of existing activity program.

5) *Open the door for future research on*

a) life enhancement programs for the elderly, b) developing strategies to encourage group participation among the elderly and, c) how to foster or regain "control" after a loss and how to minimize the devastation of a loss.
Chapter 2

Review of the Literature

This chapter covers the various theoretical perspectives of depression and the association between aging and depression. It provides a brief discussion of the therapeutic modalities available with emphasis on group psychotherapy. Later in the chapter, two nursing theories relevant to this study are presented.

Depression: Theoretical Overview

Depression, as a distinct psychological phenomenon has been recognized since the time of Hippocrates, a Greek physician, at least 2400 years ago (Deitz, 1989). In the first recorded theory of depression, Hippocrates proposed that melancholia resulted from an imbalance of the body's four basic humors (blood, phlegm, choler or yellow bile, and melancholy or black bile) and was not due to the workings of the gods. The variant mixtures of these humors in different persons determine their physical and mental qualities, and their dispositions.

Early psychoanalytic approach to depression viewed sexuality and aggression as causative factors for depression (Deitz, 1989). In 1893, Freud presented his first theory of depression as a neurological sequela of "an abnormal sexual life". He looked at depression as a somatically caused condition with a specific etiology. Later, Freud viewed depression as a result of rage concerning personal loss that was then directed inward against the ego.

Another psychological view, proposed by Jacobson (1971) and Kohut (1971), states that the rage associated with depression is more of a consequence of frustrations felt by the patient at his inability to successfully reestablish a positive self-image. Classical
analysis promotes rage during transference while the self-psychological approach helps the patient achieve a state of "inner connectedness" and thereby ward off rage. Recent developments in this theory focuses on the role of interaction in expanding one's self-representation, understanding the importance of the reestablishment of broken attachments, and renewal of thwarted pursuits in the development of a cohesive sense of self (Deitz, 1989).

Depression is an affective disorder but it also affects the individual's cognitive and physiological functioning (Buckwalter, 1990). The affective symptoms of sadness, anxiety, guilt, hostility, and irritability can be seen in the depressive attitude towards the self and the environment. Depressed persons often express negative feelings about themselves, what they do, and they even have thoughts of death. A strong attribute is a profound sense of devaluation, helplessness, and hopelessness about their situations. Cognitive functioning is shown by difficulty in organizing thoughts. Physiologic manifestations include neurovegetative signs like sleep disturbances, appetite problems, inability to experience pleasure, and psychomotor retardations. Loss of interest or pleasure is often described by the depressed as lack of interest in usual activities or not "caring anymore" (Buckwalter, 1990). They may withdraw from friends, family, and activity that were previously a source of pleasure.

Aging and Depression

There is a strong association between aging and depression. Age related changes place the elderly at greater risks for depression (Kurlowicz, 1993). For instance, age related increase in the activity of monoamine oxidase (MAO), an enzyme that catabolizes neurotransmitters thought to be involved in the pathophysiology of depression may predispose the elderly to depression. Studies have shown similarities between the neurobiological change that occur in normally aging Central Nervous System (CNS) and the neurobio-
logical abnormalities seen in depression (Steiner & Marcopulos, 1991).

Aging is often associated with changes in life style which can be stressful to the elderly and cause negative impact on their mental health. Classically, the onset of depression coincides with a specific, often abrupt, factor in the life change (Foreman & Grabowski, 1992). These adjustments in life style are often caused by experience of loss and incapacitation (Steiner & Marcopulos, 1991) and are often precursors of depressive disorders (Herr, 1992). Gomez and Gomez (1993) enumerated such loss as: loss of loved one, work or income, physical or mental health, mobility, alertness, vision or hearing, status, and home. Overall, life events occurring in the later life although fewer in number are thought to be more negative, less reversible, and more likely to involve loss (Kurlowicz, 1993). Rush, D. (1996) compiled a comprehensive list of the common physical changes that accompany aging and their corresponding implications for health. This is reproduced in Appendix H.

An interesting, but unresolved issue, is the possible positive role that aging plays in depression. Usually, the stresses that accompany aging due to adjustments in lifestyle (e.g. retirement, reduction in income, decline in physical health) have negative impact on the mental health of older persons (Bosse, 1987). Newman (1989) reviewed 21 studies that surveyed depressive symptomatology in a community population. Some of these studies suggested that an increased in risk factors for depression occurs with aging. However, others suggested that the elderly may be more resistant to depression because of well-developed coping strategies. Newman (1989) concluded that the experimental evidence is equivocal because of the wide variety of methodology used, making it difficult to compare studies.

**Therapeutic Modalities**

There is good empirical support for both biologic and psychologic models of de-
pression, which provide the basis for symptom management and treatment of depression. Therapeutic modalities using the cognitive, behavioral and interpersonal approaches have been proposed, each complementing the other. These modalities could be grouped into (a) biologic therapies which include pharmacotherapy and electroconvulsive therapy (ECT); and (b) psychotherapies which include cognitive therapy (CT) and interpersonal therapy (IPT) (Buckwalter & Babich, 1990).

**Biologic Approach**

The most popular biologic treatment approach is psychopharmacologic. It is generally accepted that about 80% of the people diagnosed with depressive illness will benefit from drug treatment (Abraham, 1991). Newly available antidepressants with minimal cardiovascular and anticholinergic side effects hold the promise of causing less morbidity than the tricyclic antidepressants (TCAs) and monoamine oxidase (MAO) inhibitors (Steiner & Marcopulos, 1991). Electroconvulsive Therapy (ECT) is also an important and effective treatment for major depressive disorder in the elderly. Advances in technology and knowledge of complex interactions of the brain reduces medical risk factors and side effects of this modality. Most clinicians still believe that pharmacotherapy is the best treatment for depressive disorders, however this practice should be challenged (Ronsman, 1987).

**Cognitive Approach**

Cognitive approaches are based on a collaboration between the patient and therapist. Psychotherapy, the "talking cure" (Steiner & Marcopulos, 1991) can be done on an individual basis or in groups. In any case, the aim of the therapy is the same: to help patients gain understanding and/or insight into their problems so that they can learn to deal with them more effectively (Bailey & Dreyer, 1977). Yalom (1985) developed the central
organizing principle of group phenomena and prescribed psychotherapeutic approaches to group therapy.

**Group Psychotherapy**

Historically, psychotherapy has long been used to help people suffering from depression. The effectiveness of these non-pharmacologic strategies are presently gaining more recognition and acceptance among clinicians. Research indicates that mild to moderate depression frequently responds to supportive care, increased activity, counseling or psychotherapy and only requires mediation when these other measures do not result in a favorable response (Ronsman, 1987).

A study done by Austad (1991) showed the importance of a group therapy method in enhancing meaningful interactions with the geriatric patients. A psychotherapeutic treatment, called "Wisdom Group" was devised involving 5 men over 68 years old who had diagnosis of organicity and depression. It departs from the traditional less relevant psychological help for elderly people and emphasizes meaningful exercises appropriate for their developmental phase. The simple format of the group (1) encourages members to perform psychological work appropriate for their developmental stage of life; (2) fosters reminiscing and communication; and, (3) offers an altruistic way to raise the self-esteem of members by making their thoughts important enough to be recorded and passed down to the next generation. This approach was effective in eliciting interaction during the meeting with each other and the group leader.

Brand & Clingempeel (1992) compared the geriatric inpatients who participated in behavioral group therapy in addition to standard programs with inpatients who participated in all hospital treatment program except behavioral group therapy. Their research failed to obtain statistically significant differences between treatment groups. However, analysis
of clinical significance supported the incremental efficacy of short-term behavioral group therapy for a subgroup of clinically depressed geriatric inpatients who had frequent contact with family members, fewer physical problems, and a higher baseline of positive social behaviors.

According to Blazer (1982), the most frequent format for therapy in a long-term care facility is group therapy, for three obvious reasons: socialization, stimulation, and modelling. Among the 'standard' treatment modalities he found available in these settings are (a) music therapy - music program to increase socialization, movement and well-being; (b) recreational therapy - "active play" to stimulate and encourage interest and exercise; and (c) dance therapy - rhythmic dance activities. Multiple baseline evaluation of systematic aerobic exercise in the treatment of four clinically depressed women confirmed the value of this mode of treatment compared to an attention placebo (Doyne & Chambless, 1983). The methodology included control of expectancy, time in treatment, exercise effects, and the use of adjunctive treatments. The results suggest substantial exercise-induced effects on several qualities of depression, including mood and cognitive function. These gains were maintained at a 3-month follow-up evaluation.

In summary, depression is an affective disorder that has long been recognized centuries ago. It is common among the elderly population and is often caused by experiences of loss and incapacitation. Often misdiagnosed, depression is usually manifested in forms of somatic complaints, which are readily attributable to the elderly's physical decline, the aches and pains of growing old. Treatments for depressive symptomatology include biologic (pharmacotherapy) and cognitive (psychotherapy) approaches.

Psychotherapy involves patient participation either on an individual basis or in groups. Psychotherapy in forms of group activity promises a more meaningful experience for depressed elderly. Studies have supported the efficacy of this modality in terms of enhancing
one's interpersonal relations, feeling of belongingness, self-esteem and sense of accomplishment thereby alleviating the depressive symptomatology. Instead of isolating themselves, patients develop meaningful relationship with people around them. The task is for health care practitioners to implement these approaches that redirect one's depressed mood into a more positive and healthy responses.

Conceptual/Theoretical Framework

Two nursing theories relevant to this study are the Roy's Theory of Adaptation and the Response Style Theory.

Roy's Theory of Adaptation

The assumptions behind the Roy Adaptation Model (Roy, 1974) are based on the model's approach to the concept of man and the process of adaptation. Man is a biopsychosocial being in constant interaction with the changing environment. To cope (adapt) with the changing world, man uses both innate and acquired mechanisms, which are biologic, psychologic, and social in origin. Roy further refined these mechanisms or adaptation modes into those relating to physiologic needs, self-concept, role model, and interpersonal relations. Man's adaptation is a function of the stimulus he is exposed to and his adaptation level. Depending on the level of stimulation, the person either adapts positively or negatively. Alternatively, the latter can be viewed as a breakdown of the adaptation mechanism.

In man, there is a cognitive subsystem, which is a coping mechanism that responds to internal and external stimuli by processing perceptions and information (Campbell, 1992). When this coping mechanism is ineffective, maladaptation occurs. Depression, in this context then, is a maladaptation of this cognitive subsystem resulting in negative ide-
ation or thought patterns that affect the total person. This maladaptation is expressed in adults as apathy, guilt, feelings of worthlessness or alienation, and unwillingness to engage in purposeful activity. In addition, because of these symptoms, they demonstrate further maladaptation through poorer self-care, health complaints (e.g. somatization), and a high suicide rate.

Somatization as an attribute of depression is explained in Roy's model. According to Roy (1974), "man as the patient is viewed as having parts or elements which are linked together in such a way that force on the linkages can be increased or decreased". To put it simply, what affects the mind also affects the body (and vice versa). Although depression is primarily an affective disorder, it finds physiological expression in the form of sleep disturbances, fatigue, and aches and pains.

Response Style Theory

Nolen-Hoeksema's (1987) Response Style Theory of depression offers a significant and general perspective from which the efficacy of the different (non-pharmacologic) treatments of depression can be compared and evaluated. First of all, she posits that individuals who engage in ruminative responses to depressed mood will experience amplification and prolongation of the mood, whereas individuals who engage in distracting responses to their depressed mood will experience relief from that mood. Ruminative responses are defined as cognitions and behaviors that repetitively focus the depressed individual's attention on his or her symptoms and the possible consequences of those symptoms (e.g. thinking in isolation, writing a diary) without taking action to relieve them. In contrast, distracting responses take the individual's mind off his/her symptoms of depressions and put it onto pleasant or neutral activities (e.g. engaging in an activity with friends or working on a hobby that takes concentration). According to Nolen-Hoeksema (1987),
the three mechanisms by which rumination can amplify a depressed mood and distraction can relieve it are (a) depressed mood increases chances for negative recall and/or inferences about events; (b) rumination serves to self-amplify existing maladaptive cognitive styles through its repeated use; and (c) rumination interferes with attention, concentration, and initiation of instrumental behaviors.

Studies of cognitive-behavioral treatments of depression indicate that increased pleasant activities and increased activity level, in general, correlates well with remediation of the affective symptoms of depression (Batson et al., 1979; Rehm, 1982). The greatest remediation of depressed mood was found in subjects in the distracting-active response condition, followed in order by the distracting-passive, ruminative-active, and ruminative-passive (Morrow & Nolen-Hoeksema, 1990). A subsequent study (Nolen-Hoeksema et al., 1993) confirmed that the more ruminative responses subjects engaged in, the longer their periods of depressed mood, even after taking into account the initial severity of the mood.

Offering various activities that will distract the negative thought patterns of the depressed elderly includes but is not limited to exercise and physical activity program. Mobility and flexibility exercises directly increase the older adults' potential to achieve greater independence and self care. They relieve tension, improve posture and aid in increasing the feeling of well being. These forms of treatment modalities for depression among the elderly have been accepted by most clinicians (Blazer, 1982). Bailey and Dreyer (1977) discussed how auxiliary therapies (occupational therapy, recreational therapy, art therapy, music therapy) can be utilized to assist the 'mentally ill patient' in his attempts to interact effectively with other people again. These activities required the patient to become involved in something outside himself, thus affording the patient less time to dwell on his problems. If patients are given interesting and challenging projects at a level of difficulty which is
appropriate for them, they benefit from their participation. By having to collect their thoughts, organize their actions and use their own initiative, they can be led to become active again in their own lives as well as the lives of their families and friends. Hopefully, the successful completion of projects will enhance the patient's self concept and afford him a sense of pride or accomplishment which often has been lacking for quite sometime. Success also tends to encourage the patient to respond to his environment and the people in it in a more healthy fashion. Thus, what was originally a simple distraction (according to Nolen-Hoeksema) now becomes a useful focal stimulus (within the context of Roy's theory).

Nurses have roles that include interventions that facilitate adaptation of this cognitive subsystem. Positive ideation helps the depressed person feel better and frees the person to use energy to contribute to a higher level of wellness. By focusing on the thought processes, nurses can help clients improve the quality of thoughts, which in turn promotes healing and wellness. However, there is no attempt to deny the importance of the negative thoughts, often about the losses suffered, but a conscious effort is made to redirect clients to free the person to respond to other stimuli (Campbell, 1992). Participation in group activities aimed at redirecting and distracting the depressed mood of the elderly will be effective in alleviating their depressive symptomatology.

Hypothesis

Based on the theoretical framework described above, the following hypotheses were formulated and tested in this study.

\( H_1: \) The degree of depression in IDE is negatively correlated with group participation.

\( H_2: \) The level of IDEs' group participation is negatively correlated with
pain experience.

H₃: The level of IDEs' group participation is positively correlated with

H₃ₐ: functional status
H₃ᵦ: availability of social support
H₃ₑ: perception of benefits

Operational Definitions

(a) Institutionalized depressed elderly (IDE) = a male or female, age 65 or older, residing at a nursing home, and who has a diagnosis of depression.

(b) Degree of depression = measure of depression expressed in terms of score points using the Geriatric Depression Scale (GDS) Test. The higher the score, the more severe is the depression.

(c) Group activity = structured and scheduled activity programs offered at the nursing home which included arts and crafts, painting, current events/timely topics, music and coffee hour, wellness/exercise program, cocktail parties, video/movie watching, pet therapy, bingo, and elder trivia.

(d) Participation in group activity (PGA) = attendance determined by the number of times an individual comes to any group activity per week computed in terms of frequency.

(e) Human factors = characteristics or attributes of the subjects such as age, gender, marital status, educational background, etc.
(f) *Environmental factors* = things or conditions that are liable to affect the subject, which includes social support, and planned program activities.
Chapter 3
Methodology

Approach and Design

This research study is a descriptive and comparative survey of groups of institutionalized depressed elderly with regard to the nature and level of their participation in therapeutic group activities and their characteristics that might reflect such participation. The basic demographics of the subjects (see Appendix C) including environmental factors that directly or indirectly influenced their participation were examined. Examples of environmental factors include availability of social support, planned programmed activities and calendar of scheduled group activities. Data collection was conducted via review of medical charts, observations, and questionnaires. The chart review provided basic information about the subjects which were used in the participant pool selection process as well as in data analysis. Participation in group activity was monitored by taking the number of times the subject participated in a given activity within the period of continuous observation. For the same period, the number of available activity sessions was also recorded. Data for a given activity was collected in a series of (minimum) two-week contiguous periods. These two-week minimum was deemed necessary to cover the (mostly) weekly cycles of programmed activities. These intervals of continuous observations was observed over a period of six months (see below for a discussion of the activities monitored). The third method (questionnaires) addressed themes relating to the subjects’ perception of the benefits derived from participating in group therapy, level of interest, somatic complaints, and availability of social support. The descriptive design was chosen because no variable would be manipulated.
Sample and Sampling Method

The target population consisted of the institutionalized elderly with a diagnosis of depression. The accessible population were the elderly with a diagnosis of depression residing at a nursing home located in Miami, Florida. The sample consisted of volunteer male and female adults: (a) age 65 or older; (b) with diagnosis of depression as found in their medical charts; having a minimum Geriatric Depression Scale (GDS) score of 5 out of 30 (Brink et al., 1982), and (c) who scored 16 and above out of a maximum of 30 in the Folstein Mini-Mental State Exam (Bayles & Kaszniak, 1987). These scales are found in Appendix D and E.

To reduce extraneous variables, the sample were limited to participants who were able to comprehend the English language and follow the instructions of the study. Individuals with severe cognitive functioning were excluded from the study. Random sampling of potential participants was limited to residents meeting the above criteria.

A total of 65 subjects was selected through random sampling. The actual selection were as follows: for $N$ potential participants within a group, the names were alphabetically sorted to form a list. Each person was given a research number. The research number of a potential participant on the list was used to index that participant. The list was then entered into a spreadsheet (Novell Quattro Pro), and a random sample was computed using the sampling menu of the spreadsheet.

Sampling begun with a survey of the existing medical charts to determine the accessible population (here denoted as $P$). At about the same time, the researcher started to monitor the attendance of all residents who participated in any group activity irrespective of both the activity type and the actual length of time spent during an attendance. This was done for a period of 6 months and resulted in the compilation of a comprehensive list containing the subjects' research numbers, frequencies and durations of attendance, and
activity types. By cross-checking this list with the names in P above, the subject pool of this study was determined.

Protection of Participants’ Rights

Each potential participant was approached individually by the researcher. The research study was thoroughly explained to them. Feedbacks about the study were encouraged, and those interested, were asked to sign the consent form (see Appendix E). The consent form listed exactly what is expected of the participant and the role of the researcher. The participants were assured that neither participation nor non-participation would affect their health care. Permissions to conduct this study was obtained from the Florida International University Review Board, the nursing home’s Institutional Review Board, and the participants (see Appendix A and B).

Data Collection Procedure

This study was conducted by a female, English-speaking, licensed Registered Nurse (RN) who has at least 15 years nursing experience and currently is licensed and has practiced as an Advanced Registered Nurse Practitioner (ARNP) for 6 years. The study was done on the geriatric residents of a 400-bed long-term care facility which provides quality health care and residential services to a predominantly Jewish geriatric population. Actual data collection lasted 6 months.

Qualified participants were approached individually by the researcher who discussed the purpose and content of the study. Interested subjects were asked to sign a consent form as proof of intent to participate. Questionnaires were handed out and convenient drop-off boxes for the completed ones were provided at the nurses’ station. Subjects who have difficulty writing or reading were interviewed in lieu of personally filling-out question-
naires themselves. Respondents were given a maximum of 3 weeks to turn in their responses. The researcher personally followed up subjects for their responses.

Specific group activities monitored included arts and crafts, painting, social events, wellness and exercise, recreational games, and trips outside of institution's compound. In addition to cocktail parties and birthday celebrations, social event activities included movies, music and coffee hour, and meetings for discussions of current events. Trips outside the facility included shopping, field trips, or dining out in groups. Appendix F shows the initial subdivisions of the group activities and the weekly activity schedule at the nursing home.

**Instruments**

The researcher developed a (structured) self-report instrument to collect data for the study. This was done by means of a written questionnaire that elicited close-ended item responses (see Appendix G). Close-ended items offer respondents a number of alternative replies from which they can choose the one that most closely approximates the 'right' answer (Polit, 1991). This format was chosen because it minimizes the respondent's writing burden and enables him/her to complete the questions within the specified time. Also, subjects may be less than willing to compose a written response than to simply check off the appropriate alternative. It is advantageous to those who are unable to express themselves well - verbally - more so because they are depressed. However, to allow for a certain degree of freedom, a space will be provided after each questionnaire item for additional comments. An example of an item format may be: "please specify/comments/other."

As mentioned above, the researcher used the GDS (Brink & Yesavage, 1982) and Folstein's MMSE (Bayles & Kaszniak, 1987) as tools to define the target population. The
GDS is a self-rating depression test specifically devised for and standardized with older subjects. It can be administered in writing or orally and contains 30 questions to which the subject responds "yes" or "no." The number of depressive responses are tallied, and the score of 0 - 30 indicates the level of depression (0 - 10 = normal; 11 - 20 = mild depression; 21 - 30 = moderate or major depression).

The reliability and validity of the GDS among elderly nursing home residents was reported by Emerson Lesher (1986) in a study of 51 residents residing in two nursing home facilities at the Philadelphia Geriatric Center. Initially, the participants were classified as (a) non-depressed, (b) having mild depression, and (c) having major depression on the basis of the Research Diagnostic Criteria (Spitzer, Endicott & Robins, 1978). Using analysis of variance they found that the main effect of the classification variable was highly significant $F(2, 48) = 18.56, p < .001$. $t$-tests comparing the means for the groups revealed they were all significantly different at the .001 level. In a similar study (Yesavage, 1983), the main effect of the classification variable was highly significant $F(2, 97) = 99.48, p < .001$ and the $t$-tests result was the same as in Lesher (1986). Test-retest reliability in Lesher (1986) was calculated for those with Major Depression ($n = 7$) by having them complete the scale twice, one month apart. A correlation of .95 between the two sets of answer was found.

The MMSE consists of 11 items, which have been divided into two different sets of tests. The first set consists of items evaluating orientation and memory. These test items require vocal responses from the patients and yield a maximum score of 21. The second set consists of items examining ability to follow verbal and written commands, name objects, write a spontaneous sentence, and copy a geometric figure. This latter set of items requires the ability to read and write and yields a maximum score of 9. Thus the total MMSE has a maximum score of 30. Adequate test-retest reliability, and valid dis-
crimination of demented from depressed patients and from normal older persons, has been
demonstrated. Mitrushina & Satz (1991) explored the reliability and validity of the MMSE
in 122 healthy neurologically intact elderly volunteers (aged 57-85 years) who were tested
with a battery of neuropsychological test over 3 annual probes. Test-retest reliability
ranged between .45 and .50 over a 1-year interval and was equal to .38 over a 2-year
period. A drop in score on the MMSE of more than 5 points over a 2-year period was
associated with a neurological disorder. Significant correlations were found with many
neuropsychological measures. On the first probe the highest correlations were obtained
with verbal tasks, especially with a measure of verbal learning, which provides evidence
of convergent validity.

The MMSE is effective in screening cognitive impairment, e.g., dementia. The
GDS, however, is not effective in detecting depression in demented institutionalized pa-
tients (Kafonek et al., 1989). Therefore both the MMSE and the GDS were used in the
screening of subjects.

The last phase of the data collection was implemented using questionnaires. The
Group Participation Questionnaires was evaluated by qualified experts in the fields of
Psychology and Gerontology. Content validity was verified by a panel from the nursing
home consisting of 5 experts from the Department of Gerontological and Psychological
Services, and other health care professionals specializing in the management of group
activities and who are familiar with the culture of the subjects.

Data Analysis

The results of the analysis (discussed in Chapter 4) is given in terms of summary
statistics that describes the degree of participation of subjects in the selected group activi-
ties. Frequency of participation of subjects were analyzed and correlated with their pain
experience, functional status, availability of social support and their perception of group activity benefits. Frequency distribution will be given for demographic data like age, length of residency, educational background, GDS score, MMSE, and ambulation status. Analysis of significance of the difference between groups of subjects is given on the mean age, GDS score, and MMSE score. The responses to each item in the questionnaires were tabulated and presented in the form of graphical distributions. The main software package used was Novell Quattro Pro.
Chapter 4

Presentation of Findings

In the following, the results of the analysis are presented. The basic demographic features of the sample is discussed first. To avoid the potential difficulty due to the large number of program activities, related activities are grouped and assigned to a smaller number of activity categories. Based on this grouping, an operational definition of participation is developed. Discussion then proceeds to the testing of hypotheses $H_1$, $H_2$, and $H_3$ proposed in Chapter 2. To recapitulate, $H_1$ predicted a negative correlation between GDS score and frequency of PGA. The second hypothesis, $H_2$, also predicted a negative correlation between pain experience and frequency of PGA. The third hypothesis is composed of three components and examines three factors that are predicted to enhance or be enhanced by group participation. This third set of hypotheses $H_{3a}$, $H_{3b}$, and $H_{3c}$ predicted positive correlations between functional status, availability of social support, and perception of benefits, respectively, all with group activity participation. The significance of the results are discussed in more detail in Chapter 5.

Characteristics of the Sample

Subjects who participated in this study were randomly sampled from predominantly elderly Jewish residents in a nursing home. A total of 65 subjects, all with diagnosis of depression, volunteered to participate in this research. Figure 1 shows the means, standard deviations, and the distributions of the basic demographic variables relevant to this study. The majority of the subjects are female (91%) and widowed (83%). Seventy-seven per cent require assistive devices
Demographic Distribution of Participants

Gender
- Male (65 subjects)
- Female (59)

Functional (ambulatory) status
- Independent (23%)
- Wheelchair (26%)
- Cane (8%)
- Walker (43%)

Marital Status
- Never married (9%)
- Separated (2%)
- Divorced (6%)
- Widowed (83%)

Geriatric Depression/Mini-Mental Scale
-mean = 9
- mean = 23

Age
Mean = 89.3
sd = 5.3

Length of Residency
8-16 Months

Figure 1. Distributions of relevant demographic variables used in this study.
for ambulation (cane, walker, and wheelchair) while over 20% reported to be independent. The length of residency ranged from 4 months to 11 years, with peak concentration of subjects residing in the 8th-16th month interval. The subjects' ages ranged from 77 to 99 years, with a mean and standard deviation of around 89 and 5.3 years, respectively. A minimum MMS score of 15 was required of a subject for inclusion in this study because severe dementia would pose difficulty in screening depression. The participants' mean scores for GDS and MMS were 8.9 and 23, respectively.

Figure 2 shows a plot of GDS against the MMS scores of all 65 subjects. Note the almost even representation of the depression scores at all cognitive levels. One can infer from this plot that any linear dependence between the two will be weak and not significant. This is confirmed by the correlation $\rho = -0.120$ (not significant for $df = 65-2$).

![Depression vs. Mini-Mental State](image)

Figure 2. Plot of the GDS versus the MMS score of 65 subjects. Linear correlation is small and statistically not significant ($\rho = -0.120$, $df = 65-2$).
As to the other characteristics of the sample, no further analysis beyond the frequency of distribution was performed on gender, marital status, and educational background. This is because there was a highly skewed distribution according to gender (subjects were predominantly female (59) and there was not enough subjects (6) for the male group). In terms of marital status (i.e. availability of a spouse), the population is also extremely homogeneous since subjects are either widowed, divorced, or never married. The effect of educational background on PGA was not examined due to suspected inaccuracies in reported years of education and the diversity and non-uniformity of curriculums within a given educational level. Most of the subjects were immigrants with different schooling from different parts of the world.

**Grouping of Activities**

Related activities were grouped and assigned to one of four categories: Outtrips, Arts and Crafts, Variety-1, and Variety-2, from hereon referred to as OT, AC, V₁, and V₂ respectively. Outtrips involves spending 2 to 3 hours for activities outside of the facility (e.g. shopping in malls, dining in restaurants, going to plays or theatres.). Arts and Crafts includes painting, stringing beads, knitting, crocheting, sewing, and ceramics. Variety-1 is a group of structured activities involving passive and active movements. Examples of this are wellness and exercises, bingo, elder trivia, and listening to music. In contrast, Variety-2 is basically sit-down sessions where subjects are encouraged to voice their ideas, beliefs, concerns, and feelings about issues/topics for the day. This includes topical discussions, support group and resident council meetings.
Measure of participation

The measure of participation, which is referred to as the frequency of PGA, or frequency, is \( f_s(A) \) where \( s \) indexes the subject and \( A \) identifies the activity category (OT, AC, V_1, or V_2). This frequency measure is computed from the ratio of the activity sessions attended to the total number of sessions offered for activity \( A \). Thus,

\[
f_s(A) = \frac{n_s(A)}{N(A)}
\]

where \( n_s(A) \) is the number of sessions attended and \( N(A) \) is the total of sessions available within a contiguous period of observation. This frequency measure describes the incidence of attendance and has no information about the duration nor the quality of participation. Also, since it does not depend on the actual time scale (i.e. weekly, monthly) of the activity, activities that vary significantly in terms of schedule are easily accommodated into a single frequency measure by a simple summation. The overall participation frequency of a subject \( s \) is defined as \( f_s \) and is given by the average of the frequencies from the four activity categories OT, AC, V_1, and V_2

\[
f_s = \frac{1}{4} \sum_{all A's} f_s(A)
\]

Note that \( f_s \) is independent of activity type and can take values from 0 to 1. A frequency \( f_s = 1 \) means full or 100% participation in all activities while a frequency \( f_s = 0 \) means no participation at all. In this study, the observed frequencies ranged from a minimum of 0 to a maximum of 0.52 (or 52%).
Findings Related to the Hypotheses

Geriatric Depression Scale (GDS) score and Participation in Group Activity (PGA)

Figure 3a shows a scatterplot of the GDS scores ($g_s$) versus the frequency ($f_s$) of participation. The frequency $f_s$ is the average of the frequencies from the four activities OT, AC, $V_1$, and $V_2$ as discussed in the previous section. Each point represents a subject and a total of 65 subjects were plotted. Two key features are evident in Figure 3a. First, note the decreasing tendency of the frequencies as the GDS score increases. This trend, confirmed by computing the correlation ($\rho_{gs} = -0.263$) was found to be significant ($p < 0.05$). This finding lends support to hypothesis $H_1$: GDS score negatively correlates with the frequency of participation. The other key feature of Figure 3a is the enhanced variability of $f_s$, or equivalently, the greater range of frequencies (e.g. the height of the green bar) among low GDS-scored subjects compared to the high GDS-scored ones. To capture this behavior, the GDS scale (0-30) was partitioned into 15 non-overlapping intervals [1,2], [3,4], ..., and [29,30]. For each partition $[k,k+1]$, the mean GDS score and the standard deviation of the frequencies of all subjects with GDS scores within this partition were computed (see the green bar in Figure 3a for an example of a partition). The result, shown in Figure 3b, gave a significant and high negative correlation between the standard deviation and the mean GDS score ($\rho = -0.9371; p < 0.01$). Shared variance was close to .84 which means that in a given partition, 84% of the variation in the frequency spread is determined by the subjects’ mean GDS score. Note that this result on variability of the frequency did not stem directly from hypotheses originally proposed by the author but was a key finding uncovered during the analysis of the data. This differential variability can be viewed as reflecting the levels of adaptation under the same condition of “generalized loss” associated with aging.
Figure 3. (a) Scatterplot of frequency of participation vs. GDS score for all 65 subjects. Each point represents a subject. Note the decreasing trend in the frequencies as GDS score increases. Computed correlation of -0.26 is significant at $\alpha = 0.05$ level. (b) Range of variation (as measured by the sample standard deviation) of the frequencies in Fig. 3a as a function of mean GDS score in a partition (e.g. green bar). Note the high negative and very significant correlation ($\rho = -0.94; p < 0.01$) between range and mean GDS score.
PGA and Pain Experience

Figure 4 shows the distribution of subjects according to their pain experience. Forty percent of the subjects reported presence of arthritic pain while only 5% indicated pain of the non-specific type (Figure 4a). In terms of occurrence, nearly 25% claimed they feel pain everyday (Figure 4b). When asked if pain interferes with PGA, 52% gave definite negative and 34% gave definite affirmative responses (Figure 4c).

Figure 4. Subject distribution according to pain experience: (a) type of pain - most common was arthritis; (b) occurrence; and (c) pain as an interference or deterrent to group activity participation. (Note: categories of pain are not mutually exclusive and some may report more than one type.)
To see if the pain is a significant factor in PGA, the mean participation frequencies of each group were tested against the null hypothesis that pain has no effect on participation. The result of the t-test showed no significant difference between the two groups \( f_{yes} = 0.154, f_{no} = 0.169, p = 0.33 \) so that the null hypotheses cannot be rejected. The analysis failed to support hypothesis \( H_5 \), so that pain was not established as a significant deterrent to PGA.

**PGA and Functional Status**

Functional status was based on ambulation. Figure 5 shows the distribution of subjects based on the assistive device (cane, walker, or wheelchair) they used for ambulation. Subjects were grouped into two: those who use any of the above assistive devices and those who are totally independent of them. On the average, subjects with assistive devices participated less \( f_{assisted} = 0.14 \) than those without \( f_{indep} = 0.25 \). This difference is significant at \( p < 0.01 \) level. This finding lends support for hypothesis \( H_{3a} \): PGA positively correlates with functional status.

![Functional (ambulatory) status](image)

Figure 5. Distribution of subjects based on the use of assistive devices for ambulation. More than three-fourths of the participants required either cane, walker, or wheelchair in their activities for daily living. Independent subjects do not require any form of assistive device.
PGA and Availability of Social Support

Two forms of social support were considered: staff and friends/families. As shown in Figure 6a, the majority (70%) perceived the staff as being supportive. Fifty-seven per cent claimed they are reminded by the staff to attend and 55% will attend if reminded (Figures 6b-6c). The calendar of planned programmed activities was reported as helpful by 59% of the subjects (Figure 6d). Subjects who find staff as supportive have a lower mean frequency of participation (0.159) than those who did not (0.182). However, t-test showed that the two groups are equivalent ($t = -0.620; p = 0.268$).

Support from friends/families was evaluated according to reported visits within the last three months. While a significant number (80%) of subjects have had family visits, a vast majority (86%) indicated no constant companion when actually attending group activities and a mere 2% have private duty attendant who can take them to these activities (Figure 7). Of those enumerated in the questionnaire, the staff and family were found to be the major sources of social support. Data showed that subjects who were visited within the last three months have a lower mean frequency of participation than those who were not visited ($f_{\text{visited}} = 0.151$, $f_{\text{notvisited}} = 0.223$, $t = -1.7$, $p < 0.05$), contrary to what was expected.

Overall, these findings failed to support hypothesis $H_{3b}$ that PGA is positively correlated with availability of social support when the sources of such support are the staff and family. The presence of staff support (and positive perception of it) did not significantly increase the frequency of participation. Furthermore, the presence of support from family (as measured by incidence of visits) did, in fact, decrease the mean participation frequency. The significance of this unexpected decrease will be made clear later.
Support from staff

Figure 6. Responses distribution regarding staff support. Subject responses were consistent and show an overall positive perception of the role of the staff. Perception of staff support has no statistically significant effect on the frequency of participation.
Support from family and friends

(a) Have constant companion?
- Sometimes (2%)
- Yes (12%)
- No (86%)

(b) Have private duty aid (PDA)?
- Yes (2%)
- No (98%)

(c) Visits from friends/relatives within last 3 months?
- No (20%)
- Yes (80%)

Figure 7. Response distribution regarding support from family and friends. Major source of support is family (80%). Subjects with family support tend to have lower participation and lower degree of depression.
PGA and Perception of Benefits

The issue raised in the following is whether the level of PGA is increased when there is a positive perception of benefits. To gauge the overall perception, subjects were asked specific as well as general questions regarding PGA. The responses are summarized in Figure 8. More than two-thirds of the subject perceived PGA as a means of relieving boredom, source of accomplishment and feeling of belonging to a group (Figures 8a,b,c). The subjects were then grouped into those who claimed that PGA is: (a) beneficial, and; (b) not beneficial. Test showed that the frequencies of participation of these two groups are not significantly different \(0.1747\) vs. \(0.1420, p > 0.05\). Thus, although it was shown that there is an overall positive perception of benefits of PGA, the study failed to support hypothesis \(H_3\) that the level of PGA is positively correlated with perception of its benefits.
Perception of Benefits of PGA

Figure 8. Subject distribution of responses regarding specific and general questions regarding benefits derived from participating in group activities. Overall, more than two-thirds of participants have positive perception of the benefits of PGA. Mean frequency of participation of those who affirm that PGA is beneficial is not significantly different those who think otherwise.
Chapter 5
Discussion, Implications, Limitations, and Recommendations

The results of this study support the hypothesis that the degree of depression is negatively correlated with group activity participation. Data shows that the mean frequency of PGA declines as the GDS scores go up suggesting that the more depressed the subject, the lesser he/she participates in any group activity. A key finding is the decline in the range of variation of the frequencies (as measured by the standard deviation about the mean) as depression scores go up (correlation $\rho = -0.9371$, $p < 0.01$). The wide range of frequencies among less depressed subjects implies that this group enjoys and utilizes a greater degree of freedom in the selection of and participation in PGA. In contrast, more depressed subjects show a narrower frequency spread, suggesting more constraints in their activity preferences. This finding is not immediately deducible from Nolen-Hoeksema theory and is more in line with Roy's concept of adaptation.

Among the factors examined, only ambulation and family support were shown to have significant social and environmental roles in group activity participation. Subjects using assistive devices for ambulation have an overall lower mean participation frequency than those ambulating independently ($f_{\text{independent}} = 0.25$ vs. $f_{\text{assisted}} = 0.14$, $p < 0.005$). Obviously, this fact must be considered in designing activities that will make it more physically accessible to this population. With regards to family support, a surprising finding is the decreased in the mean frequency among subjects who have had recent family visitors ($f_{\text{visit}} = 0.15$, $f_{\text{no visit}} = 0.22$, $p < 0.05$), contrary to what was initially expected. One would suspect that families and friends would be instrumental in encouraging group participation
and thus increase the frequency. Further reflection and analysis, however, points to a positive rationale for the observed decrease in participation. The decrease in frequency suggests that subjects choose to be with their friends and relatives rather than attend activities provided at the nursing home. Although not included in the accounting of participation, technically, friends and family visits are forms of group socialization and are generally encouraged for the well being of the residents. Since the ultimate criterion for an activity is how much it benefits the individual, family visits must be evaluated not only on its effects on participation per se but also in lowering the degree of depression. Indeed, an examination of the two groups’ GDS scores revealed that those who had visitors have statistically significant lower mean GDS score than those who did not ($g_{visit} = 8.2$, $g_{novisit} = 11.9$, $p < 0.05$). This mirrors a result from a recent study by Brand and Clingempeel (1992). Although their findings failed to show statistically significant differences between treatment groups (i.e. with and without behavioral group therapy), analysis of the clinical significance supported the efficacy of the group therapy for a subgroup of depressed geriatric patients who had frequent contact with family members. This behavior could be rationalized under Roy’s theory. According to Roy, the individual’s adaptation level is determined by the focal, contextual, and residual stimuli (Andrews, H., 1986). The process of adaptation occurs when the individual positively responds to internal or external change in his environment. In this study, environmental changes in the elderly, the focal stimuli are the aging process and institutionalization; the contextual stimuli are visits from family/friends and group activity participation; while the residual stimuli are aging and the loss experience. The experience of the physiological and psychological losses among the elderly causes depression. However, the presence of family support (contextual stimulus) enables them to adapt positively to their loss experience. This adaptation is reflected in their lower GDS scores.
The above result on family support can be appreciated better when contrasted with that found for staff support. A \textit{t-test} was done to see if there is a significance difference in participation between those that responded either negatively or affirmatively to the "supportiveness of the staff." Results show that there is no significant difference between these two groups ($f_{yes} = 0.15, f_{no} = 0.18, p > 0.25$), in sharp contrast with the previous two groups defined by their family support ($f_{visit} = 0.15, f_{novisit} = 0.22, p < 0.05$). One can speculate that the family provides a more empathic contextual stimulus than the staff and therefore has a more profound effect on PGA and depression. Simply stated, 'blood is thicker than water'. Overall, there is a positive perception of the role of the staff. Most claim they are reminded by the staff and also will attend if reminded. However, other subjects claim their decision to participate or not is more of a self directed action rather than from the encouragement of the staff ("If I'm interested, I just go"; "They don't need to tell me...")

The prediction that pain has a negative correlation with PGA frequency was not supported in this study. There was no significant difference in participation between the group that claims pain interferes with their PGA and those that deny it. This implies that pain was not necessarily a significant deterrent to PGA.

Overall, the frequency of PGA decreased with the length of residency. Subjects who have an average residency period of 1-2 years showed a higher mean frequency of PGA than those who have longer residency period. As shown in Figure 1, there is a peak participation (mode of the distribution) within the first 20 months of residency. After this period, the longer their stay in the nursing home, the lower is their PGA. This peak value may be taken as a measure of how long it takes a typical subject to adjust to a new environment and maximally utilize the activity programs in the facility.

One of the criteria specified for subject inclusion in this study is the presence of a
diagnosis of depression. Data showed that there is a lower GDS score distribution obtained in this study as compared to an overall picture/presentation of the subjects and the information obtained from their medical chart. This could be attributed to "denial," a psychological defense mechanism that might have affected the participants' scores. Since the GDS score is a major variable in this study, inaccuracies in its initial assessment may produce altered conclusions. An assumption made in the analysis is that this is a systematic error that is present in all subjects and does not invalidate the conclusions regarding relative behavior among subgroups (e.g. a constant shift or scaling of the GDS scores do not change t-test results based on such score).

Subjects were found to have vision and hearing impairments of various severity. The Mini-Mental Scale test requires the ability to repeat and copy. Because of their physiological impairment, some subjects may not have been tested as accurately as the rest. For a minority of subjects, MMS scores may not be true reflections of their cognitive level. However, because of the weak correlation between MMS and GDS scores (see Figure 2 and the accompanying discussion), small errors on the MMS estimates are not expected to have affected the analysis.

**Nursing Implications**

Nolen-Hoeksema (1987) views group activity as a therapeutic distraction to break depressed moods. From this it follows that increased group activity participation would result in lower degree of depression. The results of this study supports this hypothesis: depression negatively correlates with group activity participation.

The decline in the variability of participation frequency with increasing GDS score can be understood within Roy's Theory of Adaptation (Roy, 1974). In aging there is "generalized loss" (see Appendix H). Less depressed subjects exhibit adaptation to aging
and loss. They exercise greater freedom and flexibility in their choice to participate and manifest this through enhanced variability in participation. On the other hand, severe depression in subjects show maladaptation. This is seen as greatly diminished degrees of freedom and lower magnitude and variability in participation.

The findings presented in this study are useful for addressing nursing issues related to group activity participation among the institutionalized depressed elderly. One such issue, or task, is optimizing group activity participation. This requires knowing key attributes of depression and key variables that can be manipulated to effect a change in participation. This study has provided a demographic profile of the institutionalized depressed elderly. A key variable identified is the ambulation status vis a vis the group activities. Positive manipulations of this variable may include improving physical accessibility of a facility and providing exercise and wellness programs that mitigate further deterioration of the individual’s mobility. Getting them involved in activities even with their limited ambulation can help reduce their depressive mood. Offering various activities that are readily accessible to them will facilitate adaptation to their functional limitations and institutionalization. Family involvement should be encouraged in the planning of care of the IDEs. This will provide two-fold benefits: 1) the family can offer suggestions and inform caretakers of the IDE’s preferences, idiosyncrasies and other important information that will enhance care through better understanding of the elderly; 2) the family gets the feeling that they are part of the team that is taking care of their relative. Considering all possible influencing stimuli that affects the person will enable the caretaker to better meet the needs of the institutionalized depressed elderly.

Figure 9 illustrates the dynamics of group activity participation and depression and its nursing implications abstracted by the author from the results of this study. The negative correlation between depression and PGA is represented by the corresponding reversed ar-
Figure 9. Dynamics of PGA (Participation in Group Activities) and Depression
rows in (Depression)- and (PGA)-Blocks. The nursing implications, based on the previous relationship, is the breaking of the depressed mood through PGA as well as promoting sustained adaptation (e.g. through family support, mastery of skills, enhanced mobility, etc.) to the "generalized loss" experience (Nolen-Hoeksema). The end-result is lower depression, increased participation (PGA), and positive adaptation.

There are two major weaknesses of this study. The first concerns the characteristics of the population sample: the group studied is basically homogeneous. There was only one ethnic group (Jewish), the majority of whom were female, and all had no spouses. The setting was also limited to one nursing home. Thus, although the author feels strongly about the intrinsic validity and value of the findings presented here, utmost care must be exercised when applying these results to more diverse settings. The second drawback of this study is its descriptive design. Results are correlational and comparative in nature and no variable manipulations nor treatments were employed to determine casual relationships between the human and environmental attributes of depression and group activity participation.

Recommendations

The result of this study represents a snapshot behavior of the institutionalized depressed elderly. Further study is warranted in order to understand the dynamics of depression and group activity participation. In particular, if such a group is studied over a longer time period, it is reasonable to expect that subjects who had an increase in participation will improve in their GDS scores. It was shown that positive family support tends to decrease both GDS scores and participation frequency. On the other hand, increased ambulatory status decreases GDS but increases participation. Identifying manipulation variables and the associated direction of change in the frequency-GDS spectrum would be significant. In
the present study, participation was operationalized in terms of *incidence* of attendance. Equally important are the duration as well as quality of participation. Finally, there is a need to widen the scope of this study so as to include groups in various cultural and environmental settings. This will strengthen the generalizing of the hypotheses explored in this thesis.
LIST OF REFERENCES
List of References


APPENDICES
APPENDIX A

RESEARCH PROTOCOL
APPLICATION FOR APPROVAL OF RESEARCH INVOLVING HUMAN SUBJECTS

1. PROJECT TITLE: The Role of Group Activity Participation in Depression Among Institutionalized Elderly

2. PRINCIPAL INVESTIGATOR: Amparita L. Cabrera
   SS#: 562-31-3007
   Address: 1042 N.E. 95 Street, Miami Shores FL 33138
   Phone #: 305-757-1190
   Position: Graduate Student

3. FACULTY SUPERVISOR (If PI is a student): Dr. Luz Porter

4. STATUS OF PROJECT REVIEW: New Project

5. BRIEF DESCRIPTION OF SUBJECTS
   Number of subjects: 30
   Check all of the following categories that describe your research subjects:
   [✓] Males
   [✓] Females
   [ ] Minors (under 18 years old)
   [ ] Students (Please Specify):
   [ ] Persons With Physical Disabilities (Please Specify):
   [✓] Persons with Mental/Psychological Disabilities (Please Specify): Depressed Elderly
   [ ] Persons With Physical or Mental Health Problems (Please Specify):
   [ ] Persons With No Known Disabilities and No Known Health Problems
   [ ] Prisoners
   [ ] Pregnant women, fetuses, fetal material or placenta (Please Specify):
   [✓] Persons In Some Type of Program (Please Specify):
   [ ] Other pertinent Information (Please Specify): Elderly residing in a Nursing Home

6. TYPE OF REVIEW REQUESTED
   [✓] Full URC Review (Can be neither Exempted nor Expedited)

7. RESEARCH OBJECTIVES: The purpose of this study are:
   a) to explore the human and environmental correlates of depression in institutionalized depressed elderly
   b) To explore the relationship between human and environmental correlates of depression and

56
the level of group activity participation in institutionalized depressed elderly, and

c. To examine the role of group activity participation on the degree of depression in institutionalized depressed elderly.

8. SUBJECT RECRUITMENT: The subjects will be taken from the a sample of institutionalized elderly residing at the Miami Jewish Home & Hospital for the Aged. They meet the following criteria:
- aged 65 and older
- has a diagnosis of depression in the medical chart
- has a minimum Geriatric Depression Scale (GDS) score of 11 out of 30
- has a Folstein Mini-Mental State (FMMS) score of 20 and above out of 30
- ambulatory
- capable of performing activities of daily living (ADLs)
- English speaking

Qualified participants will be approached individually by the researcher who will discuss the purpose and content of the study. If interested, the subject will sign a consent form as proof of intent to participate. Permissions to conduct this study will be obtained from the Florida International University's Institutional Review Council, the MJHHA Institutional Review Board, and the participants.

9. BENEFITS:

a) Through this study there will be an increased awareness and understanding of the key attributes and extent of depression among the elderly. It will add to the knowledge base of caring for the depressed elderly.

b) This study may provide empirical validation of the holistic approach to nursing care. Depression is a biological, psychological, and social event and the understanding of the human response to the depressive experience is basic to viewing man holistically. This nursing approach of caring for the patient as an integrated whole person, considering physical, psychosocial, and situational/environmental interactions, is what holistic nursing aims to achieve.

c) This study may justify the integration as well as demonstrate the effectiveness of alternative approaches to nursing care. The potential benefit to subjects will be effective non-pharmacologic interventions without the complications related to traditional pharmacologic approach in the treatment of depressions.

d) Projected findings will serve as a guide to create an evaluation tool for existing activity programs. The knowledge of subjects' key attitudes vis-a-vis the optimal combination of group activity will provide an accurate context for evaluating effectiveness of activity programs.

e) Findings may trigger future research on 1) life enhancement programs for the elderly, 2) developing strategies to encourage group participation among the elderly and, 3) how to foster or regain "control" after a loss and how to minimize the devastation of a loss.

10. INFORMED CONSENT: Each potential participant will be approached individually by the researcher. The research study will be explained to them. They will be asked if they have questions regarding the study, and if interested, to sign the consent form (see attachment). The consent form will list exactly what is expected of the participant and the role of the researcher. The participants will be assured that neither participation nor non-participation will affect their health care. They may withdraw from the study anytime with no question asked.
11. CONFIDENTIALITY OF DATA: Data will be secured to safeguard confidentiality:
   a) Each participant will be given a research/code number.
   b) The data collected will be handled only by the principal investigator, the major professor and statistical consultants.
   c) Findings will be reported only in terms of group data.
   d) Individual subjects will not be identified in any way.
   e) Completed and incomplete questionnaires will be kept in a locked file.

12. METHOD AND PROCEDURES: The data collection will begin once approval has been secured from the appropriate review committees. Data collection will be done via review of medical charts, observations, and questionnaires. The purpose of the study and the data collection will be briefly explained to potential subjects. Questionnaires will be distributed by the researcher and subjects will be instructed to answer the questions independently. They will be encouraged to make any comments they wish to make. They will be directed to drop their completed questionnaires in the drop off box placed in one corner of the nurses’ station.

13. STIMULUS MATERIALS: (See Attachments)
   a) Geriatric Depression Scale (Brink & Yesavage, 1982) - to measure the patient's depression
   b) Folstein Mini-Mental State Exam (Bayles & Kaszniak, 1987) - to screen potential subjects
   c) Group Participation Questionnaires - designed by the researcher to measure subject’s opinion on group activity participation

14. RISKS TO SUBJECTS:
   As a descriptive study, no variables will be manipulated, participation is voluntary and there will be no social repercussions, economic demands, nor legal risks that the subjects will incur.
AFFIRMATION OF COMPLIANCE AND ACCEPTANCE OF RESPONSIBILITY

I agree to follow the procedures outlined in this summary description and any attachments. I understand that no contact may be initiated with subjects until I have received approval of these procedures from the URC and have complied with any modifications required in connection with that approval. I understand that additions to or changes in the procedures involving human subjects can only be made after approval of the URC. I understand that I must promptly report to the URC any problems with the rights or welfare of the human subjects. I understand and will follow Florida International University's policies concerning research with human subjects. I will do everything in my power to protect the rights and welfare of human subjects in my research project.

THE ROLE OF GROUP ACTIVITY PARTICIPATION ON DEPRESSION AMONG INSTITUTIONALIZED ELDERLY

(please enter title of project here)

Signature of Principal Investigator

[Signature]

Date

10/19/95

Printed name of Principal Investigator

AMPARITA L. CABRERA

If the PI is a student, the faculty supervisor must sign below.

I have read this application and assume responsibility for its accuracy and for supervision of the proposed research project.

Signature of Faculty Supervisor

[Signature]

Date

10/18/95

Printed name of Faculty Supervisor

DR. LUZ PORTER

ACTION RECOMMENDED BY URC **For URC use only**

Date: 10/31/95 [ ] Approved [ ] Changes/Clarifications Requested [ ] Require Full Board Review

[Signature]

Signature of URC Chairperson

[Signature]

Printed name of URC Chairperson

Date: [ ] Approved [ ] Changes/Clarifications Requested [ ] Require Full Board Review

Signature of URC Chairperson

Date: [ ] Approved [ ] Changes/Clarifications Requested [ ] Require Full Board Review

Signature of URC Chairperson

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Date: October 20, 1995

Principal Investigator: Amparita L. Cabrera

Faculty Supervisor: Dr. Luz Porter

Proposal Title: The Role of Group Activity Participation on Depression Among Institutionalized Elderly

The University Research Council has taken the following action on your proposal:

___ Granted Exempt Status
___ Approved through Expedited Review
X_ Approved through Full Council Review

___ Requests the following changes before resubmission

Sincerely,

Bernard S. Gerstman
Associate Professor of Physics and
Chairperson, University Research Council
TITLE: The Role of Group Activity Participation Among Institutionalized Elderly

PRINCIPAL INVESTIGATOR: Amperita L. Cabrera

DATE: February 16, 1996

IRB CHAIRPERSON:

Ronald Fieldstone Esq.

Vote: [ ] Approve [✓] Approve [ ] Disapprove [ ] Abstain

Signature ____________________________

IRB MEMBERS:

Charles Beber, M.D.
Medical Director
Outpatient Health Services
Miami Jewish Home and Hospital for the Aged

Vote: [ ] Approve [✓] Approve [ ] Disapprove [ ] Abstain

Signature ____________________________

Daniel Brady, Director
Douglas Gardens Community Mental Health Center
Miami Jewish Home and Hospital for the Aged

Vote: [ ] Approve [✓] Approve [ ] Disapprove [ ] Abstain

Signature ____________________________
Michael Brodie, Director
Irving Cypen Tower
Miami Jewish Home and Hospital for the Aged

Vote: [ ] Approve [ ] Approve [ ] Disapprove [ ] Abstain

[ ] Approve

Signature

Donna D. Flynn, Ph.D.
Research Associate Professor
Department of Molecular & Cellular Pharmacology (R-189)
University of Miami School of Medicine

Vote: [ ] Approve [ ] Approve [ ] Disapprove [ ] Abstain

[ ] Approve

Signature

Francine Foley-Hennessy
Assistant Executive Director-Patient Care
Miami Jewish Home and Hospital for the Aged

Vote: [ ] Approve [ ] Approve [ ] Disapprove [ ] Abstain

[ ] Approve

Signature

Marilyn Goldaber
Director of Social Services
Miami Jewish Home and Hospital for the Aged

Vote: [ ] Approve [ ] Approve [ ] Disapprove [ ] Abstain

[ ] Approve

Signature
Terry Goodman
Associate Executive Director
Miami Jewish Home and Hospital for the Aged

Vote: [ ] Approve [ ] Approve [ ] Disapprove [ ] Abstain

Signature ____________________________

Judge Robert Mark

Vote: [ ] Approve [ ] Approve [ ] Disapprove [ ] Abstain

Signature ____________________________

Deborah C. Mash, Ph.D.
Assistant Professor of Neurology and Pharmacology
University of Miami

Vote: [ ] Approve [ ] Approve [ ] Disapprove [ ] Abstain

Signature ____________________________

Brenda McKenzie
Director of Nursing
Miami Jewish Home and Hospital for the Aged

Vote: [ ] Approve [ ] Approve [ ] Disapprove [ ] Abstain

Signature ____________________________
Edwin J. Olsen, M.D.  
Mt. Sinai Hospital

Vote:  [ ] Approve  [ ] Approve  [ ] Disapprove  [ ] Abstain
       [ ] Approve with change

Signature

Betsy Pegelow, R.N.  
Channeling Program  
Miami Jewish Home and Hospital for the Aged

Vote:  [ ] Approve  [ ] Approve  [ ] Disapprove  [ ] Abstain
       [ ] Approve with change

Signature

Rabbi Solomon Schiff  
Executive Vice President  
Rabbinical Association of Greater Miami

Vote:  [ ] Approve  [ ] Approve  [ ] Disapprove  [ ] Abstain
       [ ] Approve with change

Signature

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APPENDIX B

INFORMED CONSENT
Institutionalized Depressed Elderly as Participants of Group Therapy

I , __________________________, freely and voluntarily consent to be a participant in the research project entitled The Role of Group Activity Participation in Depression Among the Institutionalized Elderly, to be conducted at the Miami Jewish Home and Hospital for the Aged at Douglas Gardens. I have been told that it will take approximately 10 - 15 minutes to answer the questionnaires. I understand that there will be 60 or more participants who will be included in this study.

I understand that the purpose of this research is to identify and describe the characteristics of individuals who participate or do not participate in group activities.

I understand that the research procedures will be as follows: Background information will be collected from my medical records and will be used in this study. I will be asked to answer the questionnaires to the best of my ability and select answers that best describe my feelings.

I understand that there are no known risks or immediate benefits involved in my participation in this research project. I have been told that my responses will be kept strictly confidential.

I understand that I may withdraw my consent and discontinue participation in this research project at any time with no negative consequences. I have been given the right to ask questions concerning the procedures, and these questions have been answered to my satisfaction.

I understand that if I desire further information about this research I should contact Amparita Cabrera at 757-1190 or Dr. Luz Porter, Major Professor at (305) 940-5845. I have been offered a copy of this informed consent form.

I have read and I understand the above. I agree to participate in this study.

______________________________________________  ________________
Participant’s signature  Date

I have explained and defined in detail the research procedure in which the participant has agreed to participate and have offered him/her a copy of this informed consent form.

______________________________________________  ________________
Investigator’s signature  Date
APPENDIX C

The following demographic data will be collected from the medical charts:

1. Date of admission to MJHHA
2. Age
3. Gender
4. Marital status
5. Educational background (No. of years of schooling)
6. Admitting Diagnosis (other medical diagnoses)
7. Depression as a diagnosis
8. Prescription of psychotropic drugs
9. Ambulation status
   (a) independent with no device
   (b) independent with assistive device (e.g. cane, walker, wheelchair)
10. Geriatric Depression Scale (GDS) Score
11. Folstein’s Mini-Mental State Exam (MMSE) Score
## APPENDIX D

### GERIATRIC DEPRESSION SCALE QUESTIONNAIRE

**NAME (Optional) ___________________________ Date: ___________________**

**DIRECTION:** Please read each question carefully. Mark your answer with a check ( ) in the appropriate column.

<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Are you basically satisfied with your life?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Have you dropped many activities and interests?</td>
<td></td>
<td></td>
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<tr>
<td>3. Do you feel that your life is empty?</td>
<td></td>
<td></td>
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<td>4. Do you often get bored?</td>
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<tr>
<td>5. Are you hopeful about the future?</td>
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<tr>
<td>6. Are you bothered by thoughts that you cannot get out of your head?</td>
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<tr>
<td>7. Are you in good spirits most of the time?</td>
<td></td>
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<tr>
<td>8. Are you afraid that something bad is going to happen to you?</td>
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<tr>
<td>9. Do you feel happy most of the time?</td>
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<tr>
<td>10. Do you often feel helpless?</td>
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<tr>
<td>11. Do you often get restless and fidgety?</td>
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<tr>
<td>12. Do you prefer to stay home at night, rather than go out and do new things?</td>
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<tr>
<td>13. Do you frequently worry about the future?</td>
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<tr>
<td>14. Do you feel that you have more problems with memory that most?</td>
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<tr>
<td>15. Do you think it is wonderful to be alive now?</td>
<td></td>
<td></td>
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<tr>
<td>16. Do you often feel downhearted and blue?</td>
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<tr>
<td>17. Do you feel pretty worthless the way you are now?</td>
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<tr>
<td>18. Do you worry a lot about the past?</td>
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<tr>
<td>19. Do you find life very exciting?</td>
<td></td>
<td></td>
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<tr>
<td>20. Is it hard for you to get started on new projects?</td>
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<tr>
<td>21. Do you feel full of energy?</td>
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<tr>
<td>22. Do you feel that your situation is hopeless?</td>
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<tr>
<td>23. Do you think that most persons are better off than you are?</td>
<td></td>
<td></td>
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<tr>
<td>24. Do you frequently get upset over little things?</td>
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<td>25. Do you frequently feel like crying?</td>
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<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>30. Is your mind as clear as it used to be?</td>
<td></td>
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</table>
### GERIATRIC DEPRESSION SCALE: ANSWER KEY

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<th>YES</th>
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<tr>
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<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

**Scoring:** Count 1 point for each depressive answer.

- **0 - 10** = Normal
- **11 - 20** = Mild Depression
- **21 - 30** = Moderate or Severe Depression
## ORIENTATION
1 = Correct
0 = Incorrect

<table>
<thead>
<tr>
<th>Question</th>
<th>Score</th>
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<tbody>
<tr>
<td>What is the year we are in?</td>
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<tr>
<td>What season of the year is it?</td>
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</tr>
<tr>
<td>What is today's date?</td>
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</tr>
<tr>
<td>What day of the week is today?</td>
<td></td>
</tr>
<tr>
<td>What month are we in?</td>
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<tr>
<td>What state are we in?</td>
<td></td>
</tr>
<tr>
<td>What country are we in?</td>
<td></td>
</tr>
<tr>
<td>What town are we in?</td>
<td></td>
</tr>
<tr>
<td>Can you tell the name of this place?</td>
<td></td>
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<tr>
<td>What floor of the building are we on?</td>
<td></td>
</tr>
</tbody>
</table>

**SUBTOTAL CORRECT**

## REGISTRATION

Ask the patient if you may test his memory. Then say the names of 3 unrelated objects, clearly and slowly, about one second for each. After you have said all 3, ask him to repeat them. This first repetition determines his score (0-3) but keep saying them until he can repeat all 3, up to 6 trials. If he does not eventually learn all 3, recall cannot be meaningfully tested.

**SCORE (0-3)**

## ATTENTION AND CALCULATION

Ask the patient to begin with 100 and count backwards by 7. Stop after 5 subtractions (93, 86, 79, 72, 65). Score the total number of correct answers. You may prompt the patient one time.

**SCORE (0-5)**

## RECALL

Ask the patient if he can recall the 3 words you previously asked him to remember. Score 0-3.

**SCORE (0-3)**
<p>| | | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>5.</td>
<td>NAMING</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Show the patient a wrist watch and ask him what it is.</td>
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</tr>
<tr>
<td></td>
<td>b. Repeat for a pencil.</td>
<td>SCORE (0-2) □</td>
</tr>
<tr>
<td>6.</td>
<td>REPETITION</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ask the patient to repeat this sentence after you - &quot;no Ifs, Ands, or Buts&quot;</td>
<td>SCORE (0-1) □</td>
</tr>
<tr>
<td>7.</td>
<td>3-STAGE COMMAND</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Have the patient follow this command - &quot;Take the paper, fold it in half, and put it on the floor.&quot; Score one point for each part correctly executed.</td>
<td>SCORE (0-3) □</td>
</tr>
<tr>
<td>8.</td>
<td>REACTING</td>
<td></td>
</tr>
<tr>
<td></td>
<td>On a blank piece of paper print the sentence &quot;Close your eyes&quot; in letters large enough for the patient to see clearly. Ask him to read it and do what it says. Score 1 point only if he actually closes his eyes.</td>
<td>SCORE (0-1) □</td>
</tr>
<tr>
<td>9.</td>
<td>WRITING</td>
<td></td>
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<tr>
<td></td>
<td>Give the patient a blank piece of paper and ask him to write a sentence for you. Do not dictate a sentence, it is to be written spontaneously. It must contain a subject and verb and be sensible. Correct grammar and punctuation are not necessary.</td>
<td>SCORE (0-1) □</td>
</tr>
<tr>
<td>10.</td>
<td>COPYING</td>
<td></td>
</tr>
<tr>
<td></td>
<td>On a clean piece of paper, draw intersecting pentagons, each side about 1 inch, and ask him to copy it exactly as it is. All 10 angles must be present and 2 must intersect to score 1 point. Tremor and rotation are ignored.</td>
<td>SCORE (0-1) □</td>
</tr>
</tbody>
</table>

**TOTAL SCORE** □

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**RATER IDENTIFICATION**

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## APPENDIX F

### CALENDAR OF ACTIVITIES

(Weekly)

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>MON</th>
<th>TUES</th>
<th>WED</th>
<th>THUR</th>
<th>FRI</th>
<th>TOTAL NUMBER OF SESSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS AND CRAFTS</td>
<td></td>
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<tr>
<td>Needle work</td>
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<tr>
<td>Crocheting</td>
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<tr>
<td>Beads stringing</td>
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<tr>
<td>Ceramics</td>
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<tr>
<td>PAINTING</td>
<td></td>
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<tr>
<td>SOCIAL EVENTS/GROUP DISCUSSION</td>
<td></td>
<td></td>
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<tr>
<td>Current events/Timely topics</td>
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<tr>
<td>Cocktail party</td>
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<tr>
<td>Birthday celebration</td>
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<tr>
<td>Video/Movie</td>
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<tr>
<td>Reminiscence</td>
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<tr>
<td>Issues and Answers</td>
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<tr>
<td>WELLNESS AND EXERCISE PROGRAMS</td>
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<tr>
<td>RECREATIONAL GAMES</td>
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<tr>
<td>Bingo</td>
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<tr>
<td>Elder Trivia</td>
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<tr>
<td>Music</td>
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<tr>
<td>Pet therapy</td>
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<tr>
<td>OUT TRIPS</td>
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<tr>
<td>MANIPULATIVE TASK</td>
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</tbody>
</table>
APPENDIX G

Group Participation Questionnaire

People have different opinions about the group activities being offered in the Home. Your opinion is very important in evaluating this program. Please check ( ) the box that best describes your answer.

Name: (optional) ___________________________ Date: _________

1. Are you aware of on-going group activities in this facility?
   a) ☐ Yes
   b) ☐ No

2. Do you participate in group activities?
   a) ☐ Yes
   b) ☐ No
   c) ☐ Sometimes

3. How many group activities do you attend per week?
   a) ☐ Once a week
   b) ☐ 2 - 3 times a week
   c) ☐ 4 - 5 times a week

4. Choose reason/reasons why you do not attend some group activities?
   a) ☐ "I forgot"
   b) ☐ "not feeling well"
   c) ☐ "not up to it"
   d) ☐ "not for me"
   e) ☐ "waste of time"
   f) ☐ "presence of or having pain"
   g) ☐ "not interested"
   h) ☐ "has other previous appointment"
   i) ☐ "others" (Specify) ___________________________

5. Do you think that attending a group activities is beneficial?
   a) ☐ Yes
   b) ☐ No
   c) ☐ Sometimes

   If so, why? __________________________________________
   __________________________________________________
   __________________________________________________

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6. Does attending group activities give a feeling of belonging to a group?
   a) ☐ Yes
   b) ☐ No

7. Do your finished arts and crafts projects give you a sense of accomplishment?
   a) ☐ Yes
   b) ☐ No

8. Does attending group activities relieve boredom?
   a) ☐ Yes
   b) ☐ No

9. How would you rate the importance of attending group activities?
   a) ☐ extremely important
   b) ☐ very important
   c) ☐ important
   d) ☐ somewhat important
   e) ☐ not important

10. Does the experience of pain interfere with your attending group activities?
    a) ☐ Yes
    b) ☐ No
    c) ☐ Sometimes

    If so, why? ___________________________________________________________
    __________________________________________________________

11. What kind of pain do you have?
    a) arthritis (bone and joints) ☐
    b) muscle pain ☐
    c) nonspecific pain ☐
    d) general body ache ☐

12. How often do you experience pain?
    a) ☐ Almost everyday
    b) ☐ everyday
    c) ☐ now and then
13. Do you find the staff supportive of you?
   a) ☐ Yes
   b) ☐ No
   c) ☐ Sometimes

14. Are you reminded by the staff to attend group activities?
   a) ☐ Yes
   b) ☐ No
   c) ☐ Sometimes

15. If reminded by the staff about group activities, will you attend?
   a) ☐ Yes
   b) ☐ No
   c) ☐ Sometimes

16. Is the calendar of activities helpful in reminding you of group activities?
   a) ☐ Yes
   b) ☐ No
   c) ☐ Sometimes

17. Do you have a constant companion when attending group activities?
   a) ☐ Yes
   b) ☐ No
   c) ☐ Sometimes

18. Do you have a private duty aid (PDA)?
   a) ☐ Yes
   b) ☐ No
   c) ☐ Sometimes

19. Have friends or relatives visited you within the last 3 months?
   a) ☐ Yes
   b) ☐ No
   c) ☐ Sometimes
### COMMON PHYSICAL CHANGES OF AGING

<table>
<thead>
<tr>
<th>Affected System</th>
<th>Changes Noted</th>
<th>Implications for Health</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Integumentary system</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin</td>
<td>Decreased turgor, sclerosis, and loss of subcutaneous fat, leading to wrinkles</td>
<td>Lowered self-esteem</td>
</tr>
<tr>
<td></td>
<td>Increased pigmentation, cherry angiomas</td>
<td>Itching, risk of injury, insomnia</td>
</tr>
<tr>
<td></td>
<td>Cool to touch, dry</td>
<td>Hyperthermia, heat stroke</td>
</tr>
<tr>
<td></td>
<td>Decreased perspiration</td>
<td>Lowered self-esteem</td>
</tr>
<tr>
<td>Hair</td>
<td>Thin, decreased pigmentation</td>
<td>Difficulty trimming nails, potential for injury</td>
</tr>
<tr>
<td>Nails</td>
<td>Thicken, ridges, decreased rate of growth</td>
<td>Decreased physical ability and fatigue with exercise</td>
</tr>
<tr>
<td><strong>Cardiovascular system</strong></td>
<td></td>
<td>Elevated blood pressure, varicosities, venous stasis, pressure sores</td>
</tr>
<tr>
<td></td>
<td>Decreased efficiency of pump action and lower cardiac reserves</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thickening of vessel walls, replacement of muscle fiber with collagen</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pulse pressure up to 100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Arrhythmias and murmurs</td>
<td></td>
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<tr>
<td></td>
<td>Dilated abdominal aorta</td>
<td></td>
</tr>
<tr>
<td><strong>Respiratory system</strong></td>
<td></td>
<td>Decreased gas exchange, decreased physical ability</td>
</tr>
<tr>
<td></td>
<td>Decreased elasticity of alveolar sacs, skeletal changes of chest</td>
<td>Increased potential for infection or aspiration</td>
</tr>
<tr>
<td></td>
<td>Slower mucus transport, decreased cough strength, dysphagia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Postnasal drip</td>
<td></td>
</tr>
<tr>
<td><strong>Gastrointestinal system</strong></td>
<td></td>
<td>Difficulty chewing</td>
</tr>
<tr>
<td></td>
<td>Wearing down of teeth</td>
<td>Dry mouth, difficulty digesting starches</td>
</tr>
<tr>
<td></td>
<td>Decreased saliva production</td>
<td>Decreased appetite, malnutrition</td>
</tr>
<tr>
<td></td>
<td>Loss of taste buds</td>
<td>Difficulty chewing, slower to eat</td>
</tr>
<tr>
<td></td>
<td>Muscle atrophy of cheeks, tongue, etc</td>
<td>Feeling of fullness/heartburn after meals</td>
</tr>
<tr>
<td></td>
<td>Thinned esophageal wall</td>
<td>Constipation</td>
</tr>
<tr>
<td></td>
<td>Decreased peristalsis</td>
<td>Pernicious anemia, frequent eructation</td>
</tr>
<tr>
<td></td>
<td>Decreased hydrochloric acid and stomach enzyme production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Decreased lip size, sagging abdomen</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Atrophied gums</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Decreased bowel sounds</td>
<td></td>
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<tr>
<td></td>
<td>Fissures in tongue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Increased or decreased liver size (2-3 cm below costal border)</td>
<td></td>
</tr>
<tr>
<td><strong>Urinary system</strong></td>
<td></td>
<td>Change in self-concept</td>
</tr>
<tr>
<td></td>
<td>Decreased number of nephrons and decreased ability to concentrate urine</td>
<td>Poorly fitting dentures, difficulty chewing, potential for mouth ulcers, loss of remaining teeth</td>
</tr>
<tr>
<td><strong>Reproductive system</strong></td>
<td></td>
<td>Potential for misdiagnosis</td>
</tr>
<tr>
<td>Female</td>
<td>Atrophied ovaries, uterus</td>
<td>Ovarian cysts</td>
</tr>
<tr>
<td></td>
<td>Atrophy of external genitalia, pendulous breasts, small flat nipple, decreased public hair</td>
<td>Lowered self-esteem</td>
</tr>
<tr>
<td></td>
<td>Scant vaginal secretions</td>
<td>Dyspareunia</td>
</tr>
<tr>
<td></td>
<td>Vaginal mucosa thinned and friable</td>
<td>Lowered self-esteem</td>
</tr>
<tr>
<td>Male</td>
<td>Decreased size of penis and testes, decreased pubic hair, pendulous scrotum</td>
<td>Difficulty urinating, incontinence</td>
</tr>
<tr>
<td></td>
<td>Enlarged prostate</td>
<td>Decreased physical ability</td>
</tr>
<tr>
<td><strong>Musculoskeletal system</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Decreased muscle size and tone</td>
<td></td>
</tr>
</tbody>
</table>

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75
<table>
<thead>
<tr>
<th>Affected</th>
<th>Changes Noted</th>
<th>Implications for Health</th>
</tr>
</thead>
</table>
| Neurological system | Decreased range of motion in joints, affecting gait, posture, balance, and flexibility  
Kyphosis  
Joint instability  
Straight thoracic spine  
Breakdown of chondrocytes in joint cartilage  
Osteoporosis  
Diminished hearing, vision, touch, and reaction time  
Diminished pupil size, peripheral vision, accommodation  
Diminished sense of smell, taste  
Decreased balance  
Decreased pain sensation  
Decreased ability to problem solve  
Diminished deep tendon reflexes  
Decreased sphincter tone  
Diminished short-term memory | Increased risk of falls, decreased mobility  
Lowered self-esteem  
Increased risk of falls, injury  
Osteoarthritis, joint pain, reduced ability for activities of daily living  
Increased risk of fracture  
Increased risk of injury, social isolation  
Decreased appetite, malnutrition  
Increased risk of injury  
Increased risk of injury  
Difficulty adjusting to new situations  
Incontinence (fecal or urinary)  
Forgetfulness |